

No. 638,382.

Patented Dec. 5, 1899.

D. A. DOWNING.
GARDEN TOOL.

(Application filed Sept. 20, 1899.)

(No Model.)

Fig. 1.

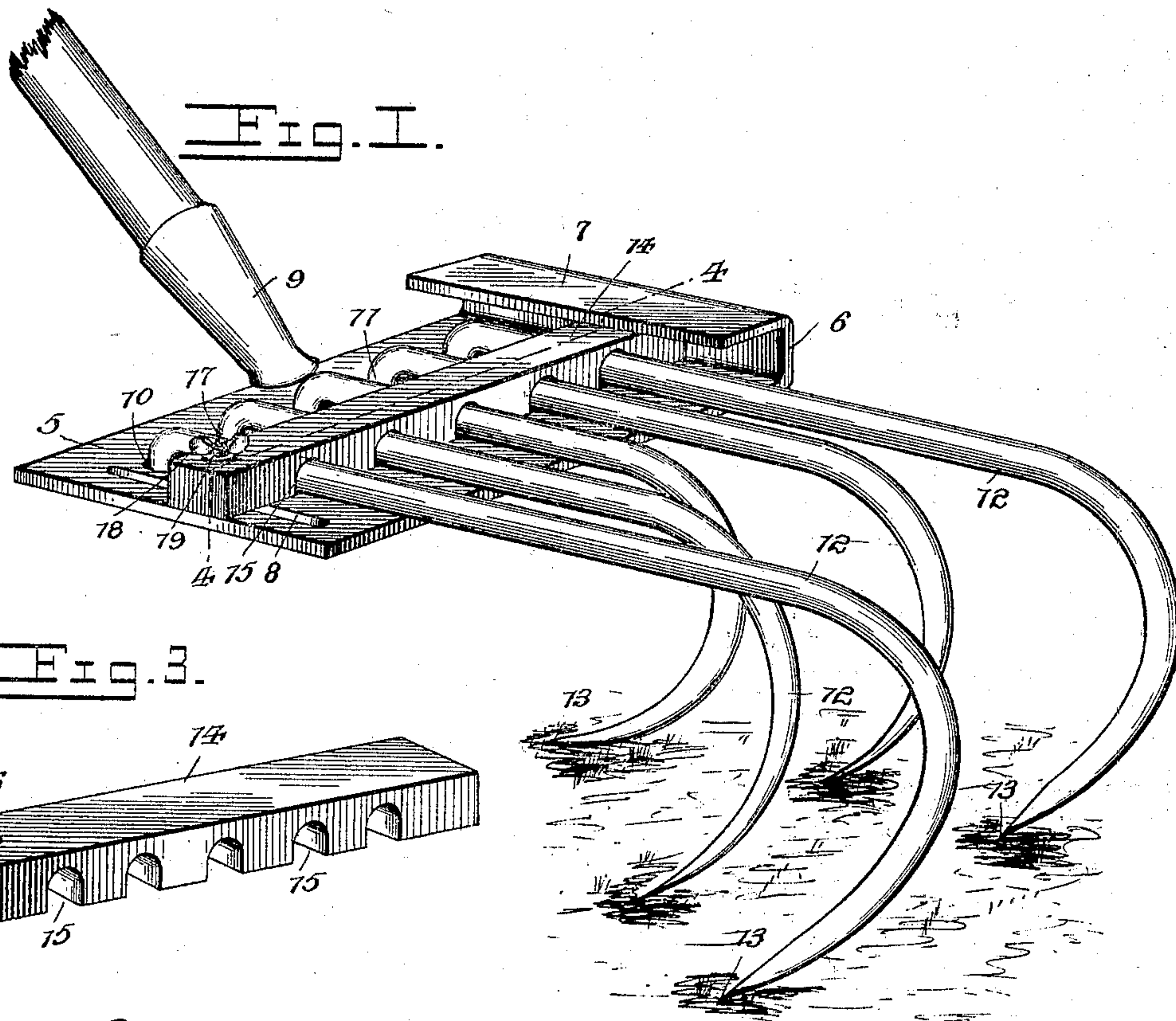


Fig. 3.

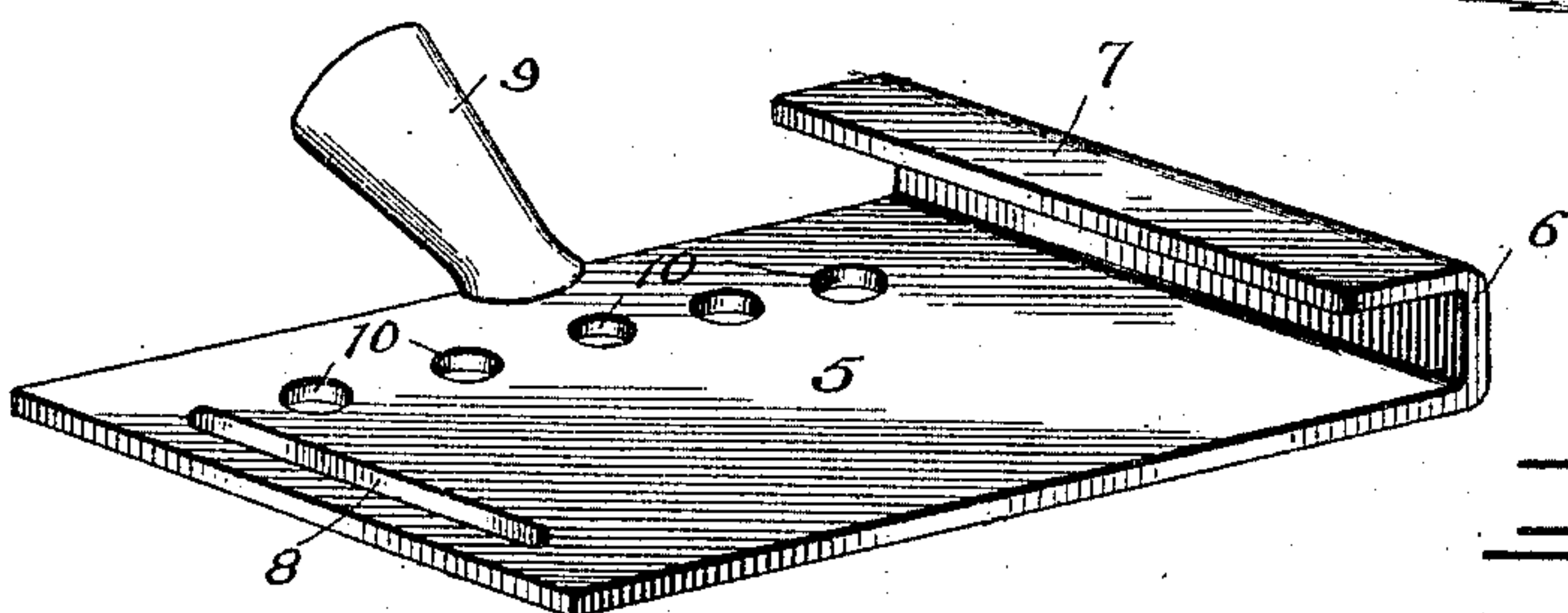
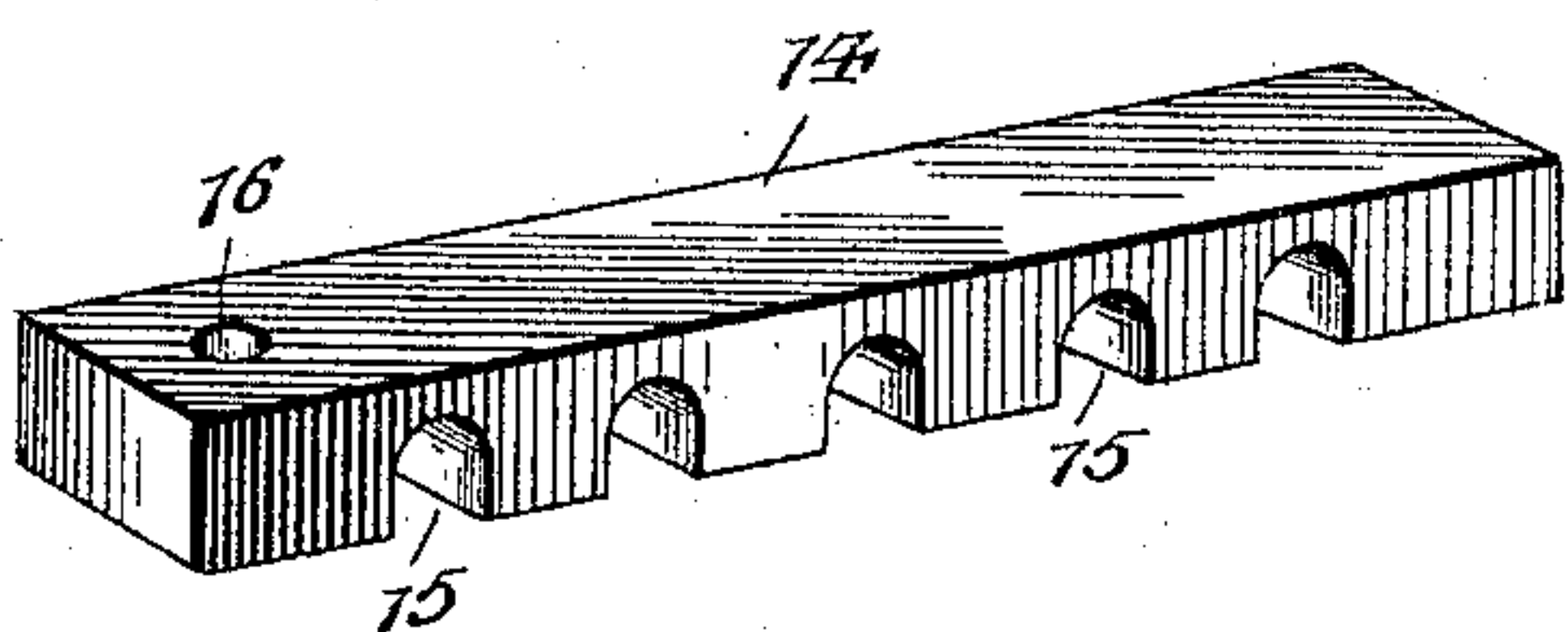
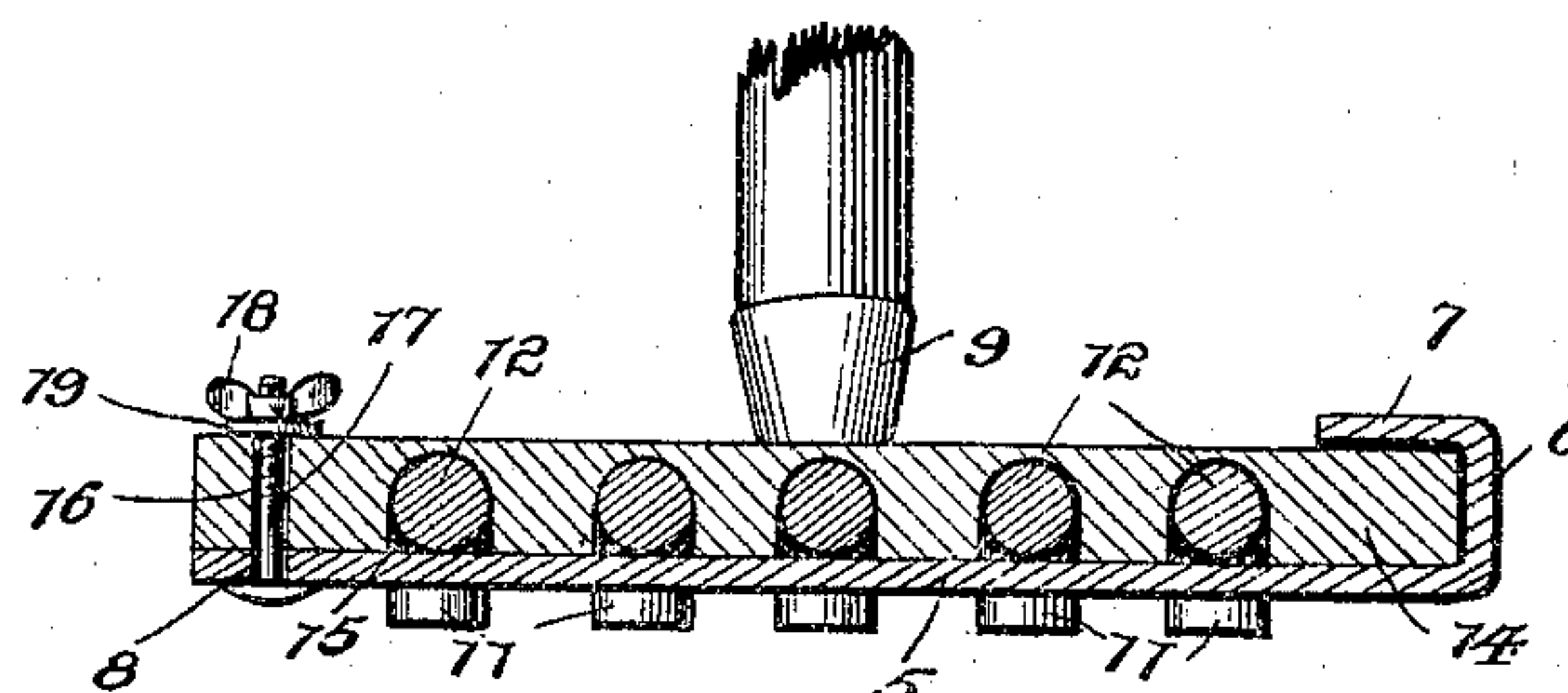


Fig. 2.

Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

DANIEL A. DOWNING, OF TIPTON, IOWA.

GARDEN-TOOL.

SPECIFICATION forming part of Letters Patent No. 638,382, dated December 5, 1899.

Application filed September 20, 1899. Serial No. 731,081. (No model.)

To all whom it may concern:

Be it known that I, DANIEL A. DOWNING, a citizen of the United States, residing at Tipton, in the county of Cedar and State of Iowa, have invented a new and useful Garden-Tool, of which the following is a specification.

This invention relates to garden-tools, and more particularly to that class adapted for hoeing or plowing and comprising a plurality of fingers lying in different planes; and it has for its object to provide a simple and efficient mounting for the finger, as also a simple means for adjusting the fingers and clamping them fixedly in position.

In the drawings forming a portion of this specification and in which like numerals of reference indicate like parts in the several views, Figure 1 is a perspective view showing the complete implement. Fig. 2 is a detail view showing the supporting-plate, and Fig. 3 is a detail perspective of the clamping-bar. Fig. 4 is a section on the line 4 4 of Fig. 1.

5 represents a supporting-plate which is substantially rectangular in outline and one end of which is bent upwardly at right angles to the plate, as shown at 6, and then laterally to lie above and parallel with the plate, as shown at 7, to form a cleat. At the opposite end of the plate 5 is formed a transverse slot 8, for a purpose which will be presently explained, and at the rear side of the plate is a socket 9, adapted to receive a handle.

Adjacent the rear edge of the plate 5 is formed a series of perforations 10, in which are seated the downturned rear ends 11 of the shanks of a plurality of hooks or fingers 12, which fingers are odd in number, and of which the middle finger has a short shank and the fingers at each side thereof longer shanks, so that the points 13 of the hooks or fingers outline a triangle. The shanks of the several hooks lie upon the upper face of the plate 5, and the forward ends of the shanks extend beyond the front edge thereof, said shanks being clamped against the plate by means of a bar 14, having recesses 15 in its under side, adapted to fit over and receive the shanks of the hooks. One end of this bar fits beneath the cleat 7, while the other end is provided with a perforation 16, registering with the slot 8. Passed upwardly through

the slot 8 and the perforations 16 is a clamping-bolt 17, the head of which lies against the lower side of the plate 5, and upon the upper end of which and above the bar 14 are disposed a thumb-nut 18 and an interposed washer 19, whereby the bar 14 may be clamped against the shank of the several hooks or fingers to hold them against the plate 5. The separation of the slots or recesses 15 is somewhat greater than the separation of the perforations 10, and thus by moving the bar 14 longitudinally of the shanks of the fingers or hooks the said hooks may be adjusted pivotally to move their ends 13 toward or away from each other to broaden or decrease the width of the furrow.

It will of course be understood that in practice the plate 5 may be cast, that any desired number of hooks or fingers may be employed, and that other alterations in the structure and various modifications of materials and proportions may be made without departing from the spirit of the invention.

Having thus described the invention, what is claimed as new is—

1. In a garden-tool the combination with a plate having a socket and provided with perforations and a transverse slot, one end of the plate being bent upwardly and laterally to lie above the body of the plate, of a plurality of fingers having their extremities bent at an angle thereto and seated in the perforations, a clamping-bar having one end disposed beneath the projecting portion of the plate and having an opening in its opposite end registering with the slot in the plate, and a clamping-bolt passed through the slot and perforation and adapted to clamp the bar between it and the plate.

2. In a garden-tool, the combination with a plate provided with a socket and having a cleat extending above and parallel therewith, said plate having also a transverse slot, and a series of perforations, of a plurality of fingers having downturned ends seated in the perforations, a clamping-bar having one end disposed beneath the cleat and adapted for sliding movement with respect thereto, a perforation in the opposite end of the bar registering with the slot in the plate, recesses in the bar adapted to receive the fingers and spaced apart a distance greater than the spac-

ing of the perforations in the plate, and a clamping-bolt passed through the slot in the plate and the perforation in the bar and adapted to permit adjustment of the bar and to
5 clamp it against the fingers to hold them against the plate.

In testimony that I claim the foregoing as

my own I have hereto affixed my signature in the presence of two witnesses.

DANIEL A. DOWNING.

Witnesses:

CHAS. H. LONG,

OWEN C. HARDMAN.